

CLAIM(S)

What is claim d is:

1. A method for the deposition of an ink jet printable composition, to a substrate comprising:
 - 5 depositing an ink composition on a substrate by ink jet printing;
 - wherein said composition comprises:
 - (a) functional material;
 - (b) organic polymer comprising polyvinylpyrrolidone;
 - 10 dispersed in
 - (c) dispersion vehicle selected from organic solvent, water, or mixtures thereof;
 - and wherein the viscosity of said composition is between 5 mPa.s to 50 mPa.s at a temperature of 25 to 35°C.
- 15 2. The method of Claim 1 further comprising the step of firing said ink jet printable composition and substrate.
3. The method of Claim 1 wherein said substrate is treated to
- 20 change its surface tension.
4. The method of Claim 1 wherein said substrate is selected from glass, ceramic, or plastic.
- 25 5. The method of Claim 1 wherein said composition further comprises up to 10 wt% inorganic resinate.
6. The method of Claim 5 wherein said inorganic resinate is silver resinate or a mixture of metal resinates.
- 30 7. The method of Claim 1 wherein said functional material is a conductive functional material.

8. The method of Claim 1 wherein said organic polymer is further comprised of other polymers selected from the group comprising polymethacrylates and polyacrylates.

5 9. The method of Claim 1 wherein said composition further comprises a monomer wherein said monomer is ultraviolet curable or thermally curable.

10 10. The composition of Claim 9 wherein said monomer is selected from the group comprising triethylolpropane ethoxy triacrylate, trimethylolpropane triacrylate, pentaerythritol triacrylate, pentaerythritol trimethacrylate, trimethylolpropane trimethacrylate, pentaerythritol tetraacrylate, pentaerythritol tetramethacrylate, triethylene glycol diacrylate, triethylene glycol dimethacrylate, polyoxyethylated trimethylol-
15 propane triacrylate, ethylated pentaerythritol triacrylate, dipentaerythritol monohydroxypentaacrylate and 1,10-decanediol dimethacrylate.

20 11. The method of Claim 1 wherein said functional material is present in the range of 1-60 wt.%, based on total composition.

12. The method of Claim 1 wherein said organic polymer is present in the range of 1-10 wt.%, based on total composition.

25 13. The method of Claim 1 wherein said dispersion vehicle is present in the range of 40-95 wt.%, based on total composition.

14. The method of Claim 9 further comprising a photoinitiator.

30 15. The method of Claim 1 wherein said organic solvent is selected from aliphatic alcohols, esters of aliphatic alcohols, terpenes, ethylene glycol, esters of ethylene glycol, carbitol esters or mixtures thereof.